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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,962	09/27/2001	Craig Paulsen	29757/P-577	2536

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MARSHALL, GERSTEIN & BORUN
6300 SEARS TOWER
233 SOUTH WACKER
CHICAGO, IL 60606-6357

EXAMINER

MARKS, CHRISTINA M

ART UNIT	PAPER NUMBER
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3713

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,962	PAULSEN ET AL.	
	Examiner	Art Unit	
	C. Marks	3713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "about" in claims 1, 7, and 13 and those dependent therefrom is a relative term that renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "about" in relation to a measurement of degree does not define what exact degree is encompassed by the claim and is therefore indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Griswold et al. (US Patent No. 6,027,115).

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Griswold et al. disclose a gaming apparatus comprising a housing (FIG 1, reference 12), a value input device (FIG 1, reference 22 and 24), an input device to allow the player to make a wager (FIG 1, reference 20), a slot machine reel rotatable about an axis having an outer circumferential region (Column 4, lines 53-57). A motor is used to drive the wheels (Column 6, lines 15-16).

The gaming apparatus also includes a flexible display in the form of a reel strip (Column 3, lines 39-42) that allows the reel strip to be bent from a substantially straight configuration to a curved configuration (FIG 4A and FIG 2). This curved configuration is capable of contacting the outer circumferential region of the reel at two points (FIG 3A). While the exact angular displacement is not disclosed, it is inherent that for the strip to function in a gaming reel of a round configuration as disclosed, the displacement would be ninety degrees between the points. The display is adapted to display indicia to the player (FIG 4A). The display of the indicia is controlled by the processor (Column 9, lines 38-42).

The gaming apparatus also includes a slip ring drum rotatable about the axis of the reel where the slip ring drum includes a plurality of electrical conductors including electrically conductive brushes (Column 6, lines 13-23). The game apparatus also includes a processor that controls both the light source elements and the gaming outcome (Column 9, lines 24-26). It is notoriously well known in the art that in a gaming machine the processor has a memory, is in control of detecting deposits and wagers, determines the indicia to be displayed, controls the motor to spin and stop the wheels, and to determine a value associated with an outcome and hence to pay a player.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 5, 6, 8, 11, 12, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold et al. (US Patent No. 6,027,115) in view of Acres et al. (US Patent No. 6,008,784) in view of Universal Display: FOLED Technology.

What Griswold et al. disclose has been discussed above and is incorporated herein. Griswold et al. do not disclose the flexible display is programmed to dynamically change the indicia; the flexible display is an LED.

Acres et al. disclose a flexible display that is adapted for use in a casino environment wherein the display includes a plurality of LEDs arranged to form a face around that which is curved about a horizontal axis (Column 1, lines 43-47) in the form of a mechanical odometer (Column 2, lines 27-29) to display numerals in different colors (Column 2, lines 40-44). A

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display drive circuit is coupled to the elements to display a visual image on the face (Column 1, lines 46-48). The lights are selectively illuminated to form a visual image to display a series of numerals (Column 2, lines 25-35) thus the display can dynamically change. Acres et al. disclose that the use of such a flexible, curved, and dynamic display is advantageous in that it can attract the attention of customers (Column 1, lines 28-30). The device of Acres et al. includes a number of LEDs in a flexible substrate to be used as light.

Universal Display Corporation: FOLED Technology discloses that it is advantageous to substitute the use of normal LEDs with the FOLED technology. Motivations for doing so include the flexibility of FOLED, the ultra-lightweight, thin-form, as well as the durability and cost-effective processing.

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the dynamic FOLED format into the flexible display as disclosed by Acres et al. in order to provide a more efficient, flexible, durable and cost effective means to display information. One would be motivated to incorporate FOLED as cost would be reduced as FOLED is less breakable, more impact resistance and more durable as well as more cost-effective to produce. Moreover, one would be motivated to incorporate the FOLED and Acres et al. into the apparatus of Griswold et al. Both are drawn to a flexible display based upon a curved face around a horizontal axis. One would be motivated to make this incorporation in order to attract a greater number of consumers to use the machine, as more attention would be drawn by the dynamically changing display as taught by Acres et al. and thus more revenue would be drawn for the casino.

Claims 3, 4, 9, 10, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold et al. (US Patent No. 6,027,115) in view of Acres et al. (US Patent No. 6,008,784) in view of Universal Display: FOLED Technology further in view of Business Week 2000: The Tube.

What Griswold et al., Acres et al., Universal Display, disclose, teach, and/or suggest has been discussed above and is incorporated herein.

Griswold et al., Acres et al., and Universal Display do not disclose the use of an LCD as the means for flexible display.

However, the Tube, as disclosed by Business Week is a flexible form LCD that can be bent and used in both a substantially straight and curved configuration and allows dynamically changing indicia to be displayed.

The use of a flexible LCD over a FOLED would be merely a design choice as both present advantages to their use. A possible motivation to one of ordinary skill in the art to use a flexible LCD over a FOLED is that LCD is known to consume very little power and thus would save the casino money in the electricity required to run the machine. Hence, the use of a flexible LCD over a FOLED would have been obvious to one of ordinary skill in the art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,502,758: Teaches that with a flexible display it is possible to display even in the same position, a substantially infinite number of different letters, icons or numerals.

US Patent No. 4,932,147: Dynamically changing LCD substrate.

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US Patent No. 3,864,024: Selectively changeable composite optical display having a flexible layer.

US Patent No. 6,530,165: Assembly for mounting a flexible display sheet to a structure including a bracket for mounting.

US Patent No. 5,752,881: Slot machine reel with various LCD configurations in a flexible manner mounted upon it.

AV Video: Announce First Video-Capable Flexible Plastic LCD Display: Discusses the use of plastic LCD to display images and the flexibility of such LCD.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Marks whose telephone number is (703)-305-7497. The examiner can normally be reached on Monday - Friday (7:30AM - 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Martin-Wallace can be reached on (703)-308-1148. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9302 for regular communications and (703)-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1148.

cmm
cmm
March 18, 2003



**MICHAEL O'NEILL
PRIMARY EXAMINER**